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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,431	09/11/2003	Geun-Yong Park	1349.1307	4099

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER


PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/659,431	<b>Applicant(s)</b> PARK, GEUN-YONG	
	<b>Examiner</b> Hai C. Pham	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 11-14, 16, 21, 22, 25, 26, 30, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 5, 7-10, 15, 17-20, 23, 24, 27-29 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/11/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 25 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Charych et al. (U.S. 5,478,998).

Charych et al. discloses an optical scanner (10) comprising a scan unit (optical scanning unit 14) to emit a laser beam (laser beam generating mechanism 40), a hinge (pivot structure 16) to pivotably support the scan unit (Figs. 3, 8, 9), and an adjusting portion (e.g., position-holding mechanism) to adjust an amount of pivot of the hinge (the position-holding mechanism comprising the ratchet elements 54, 56 pressed together by the spring 58 allows the scanning unit 14 to adjustably pivot around the pivot structure 16 in 5 degree increments).

4. Claims 1-2, 6, 11-12, 16, 25-26, 30 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Okugawa et al. (U.S. 6,600,504).

Okugawa et al. discloses in Figs. 1-2 and 13 a laser scan unit assembly (30y, 30M, 30C, 30K, Fig. 1) disposed in a printer body, the laser scan unit (30, Fig. 13) comprising a laser scan unit having a window (34, Fig. 2) on a front surface thereof through which a laser beam is emitted, a hinge portion (shaft 603) provided at a first side of the laser scan unit to pivotably dispose the laser scan unit on the printer body, and an adjusting portion (driving screw 609) on a second side of the laser scan unit opposite to the first side to adjust an amount the laser scan unit pivots (when the screw 609 is driven to rotate, the frame body 604 of the laser scan unit 30 rotates around shaft 603) (see Embodiment 4 and related discussions starting at col. 16, line 60).

With regard to claim 11, Okugawa et al. teaches the image forming apparatus containing a plurality of laser scan unit assemblies (30y, 30M, 30C, 30K) enclosed in a

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printer body (Fig. 1), a photosensitive body (belt-shaped photoreceptor 1) on which an image is formed by the plurality of laser beams, a developing apparatus (4) to develop the image formed on the photosensitive body and to transfer the developed image onto a paper (recording sheet P), a paper convey apparatus (roller pair 23) to convey the paper to the developing apparatus.

Okugawa et al. further teaches:

- the printer body (e.g., supporting member 600 of the printer) has a hinge supporting portion (lifted portions 601 and 602) provided thereon to support rotation of the hinge portion (shaft 603),
- the adjusting portion comprises a first adjusting unit (engagement flares 607 and 608) provided on the second side of the laser scan unit, and a second adjusting unit (adjusting screw 609 and gear 610) provided on the body.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-4, 13-14, 21-22 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okugawa et al. in view of Kim (U.S. 6,046,759).

Okugawa et al. discloses all the basic limitations of the claimed invention including the hinge portion being a hinge shaft (603), which is formed on the same

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plane as the laser beam, but except for the hinge supporting portion being a groove to support the hinge shaft, and the groove having V-shape, and the resilient member to press the hinge shaft against the groove.

Kim discloses a laser scanner tilt adjusting apparatus for a printer having a laser scan unit provided with guide rollers (120, 130) supported by the elevating blocks (121 and 131) formed with V-shaped grooves (121a and 131a), and corresponding rotary knobs (142 and 143) to press the elevating blocks against the respective guide rollers.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the hinge supporting portion in the form V-shaped groove and respective resilient member in the device of Okugawa et al. as taught by Kim. The motivation for doing so would have been to allow the hinge to pivot freely on the groove without being deviated or dislocated to the outside of the printer frame.

#### ***Allowable Subject Matter***

7. Claims 5, 7-10, 15, 17-20, 23-24, 27-29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of the allowability of claims 5, 15 31 is the inclusion therein, in combination as currently claimed, of the limitation "wherein the

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hinge portion is formed as a groove and the hinge supporting portion is formed as a hinge shaft to support the groove”, which is not found taught by the prior art of record considered alone or in combination.

The primary reason for the indication of the allowability of claims 7, 17, 27 is the inclusion therein, in combination as currently claimed, of the limitations wherein “the first adjusting unit is an inclined surface and the second adjusting unit is a screw”, which are not found taught by the prior art of record considered alone or in combination.

The primary reason for the indication of the allowability of claims 8, 18 is the inclusion therein, in combination as currently claimed, of the limitations wherein “the first adjusting unit is a screw and the second adjusting unit is an inclined surface”, which are not found taught by the prior art of record considered alone or in combination.

The primary reason for the indication of the allowability of claims 10, 20 is the inclusion therein, in combination as currently claimed, of the limitation “wherein the adjusting portion further comprises a pressing unit to press the first adjusting unit against the second adjusting unit”, which is not found taught by the prior art of record considered alone or in combination.

The primary reason for the indication of the allowability of claim 23 is the inclusion therein, in combination as currently claimed, of the limitation “wherein the resilient members are metal plates having a resilience”, which is not found taught by the prior art of record considered alone or in combination.

Claims 9, 19, 24 and 28-29 are allowable because they are dependent from claims 7, 17, 20 and 27 above.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM  
PRIMARY EXAMINER

July 11, 2005